

**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
 (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>WS 2242 PCT</b>	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/011451</b>	International filing date ( <i>day/month/year</i> ) <b>13.10.2004</b>	Priority date ( <i>day/month/year</i> ) <b>10.11.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>B65H63/06</b>		
Applicant <b>SAURER GMBH &amp; CO. KG</b>		

<ol style="list-style-type: none"> <li>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</li> <li>2. This REPORT consists of a total of <b>6</b> sheets, including this cover sheet.</li> <li>3. This report is also accompanied by ANNEXES, comprising:                     <ol style="list-style-type: none"> <li>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <b>4</b> sheets, as follows:                             <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> </li> <li>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</li> </ol> </li> </ol>																
<ol style="list-style-type: none"> <li>4. This report contains indications relating to the following items:                     <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15px; text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. I      Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II      Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III      Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV      Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V      Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VI      Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VII      Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. VIII      Certain observations on the international application</td> </tr> </table> </li> </ol>	<input checked="" type="checkbox"/>	Box No. I      Basis of the report	<input type="checkbox"/>	Box No. II      Priority	<input type="checkbox"/>	Box No. III      Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV      Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V      Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI      Certain documents cited	<input type="checkbox"/>	Box No. VII      Certain defects in the international application	<input type="checkbox"/>	Box No. VIII      Certain observations on the international application
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/011451

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 

This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
 
  - international search (Rule 12.3 and 23.1(b))
  - publication of the international application (Rule 12.4)
  - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the **elements** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 

the international application as originally filed/furnished  
 the description:  
 pages 1–8 \_\_\_\_\_ as originally filed/furnished  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the claims:  
 nos. \_\_\_\_\_ as originally filed/furnished  
 nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
 nos.\* 1–10 received by this Authority on 05.12.2005 with telefax  
 nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 the drawings:  
 sheets 1/3–3/3 \_\_\_\_\_ as originally filed/furnished  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
 a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3.  The amendments have resulted in the cancellation of:
 

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 

the description, pages \_\_\_\_\_  
 the claims, nos. \_\_\_\_\_  
 the drawings, sheets/figs \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	1–10	YES
	Claims	_____	NO
Inventive step (IS)	Claims	1–10	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	1–10	YES
	Claims	_____	NO

## 2. Citations and explanations (Rule 70.7)

1 This report makes reference to the following documents:

D1: EP-A-1 295 835 (RIETER INGOLSTADT SPINNEREI)  
26 March 2003 (2003-03-26)

D2: EP-A-0 877 108 (LUWA AG ZELLWEGER) 11  
November 1998 (1998-11-11)

D3: WO 00/73189 A (LUWA AG ZELLWEGER; HOELLER  
ROBERT (CH)) 7 December 2000 (2000-12-07)

2 **D1** is considered to be the prior art closest to the subject matter of claim 1. D1 discloses (paragraph [0011]) a:

yarn cleaner for cleaning out defects from a yarn, a yarn parameter being measured in the measuring head of the yarn cleaner, and cleaning limits being determined for the yarn parameter; when these limits are exceeded, this signals that an error is present; the measured values of the yarn parameter are then compared with cleaning limits, and unacceptable defects are cut out of the yarn (**see preamble of claim 1**).

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Yarn cleaners according to the preamble of claim 1 are also known, for example, from **D2 and D3**.

Thus the subject matter of claim 1 differs from the known yarn cleaners in that

- the yarn cleaner is designed for cleaning out novelty yarn (1), the novelty yarn being made up of an alternating sequence of webs (14) and effects (13), the effects consisting of predetermined bulges;
- at least one value of the yarn parameter is predetermined for webs (14) and at least one value of the yarn parameter is predetermined for effects (13); a predetermined tolerance range is allocated to the value of the yarn parameter for the effect, said tolerance range having an upper cleaning limit ( $RG_{E0}$ ), which is higher than the value of the yarn parameter for effects, as an upper threshold value, and having a lower cleaning limit ( $RG_{EU}$ ), which is lower than the value of the yarn parameter for effects (13), as a lower threshold value; a predetermined tolerance range is allocated to the value of the yarn parameter for the web, said tolerance range having an upper cleaning limit ( $RG_{ST0}$ ), which is higher than the value of the yarn parameter for webs (14), as an upper threshold value, and having a lower cleaning limit ( $RG_{STU}$ ), which is lower than the value of the yarn parameter for webs, as a lower threshold value;

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- measured yarn parameter values from the web region are compared with threshold values allocated to the web parameter; and measured yarn parameter values from an effect region are compared with threshold values allocated to the effect parameter.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

The problem to be solved by the present invention can therefore be regarded as that of designing a yarn cleaner that has a larger operative range.

The solution to this problem as proposed in claim 1 of the present application involves an inventive step for the following reasons (PCT Article 33(3)):

Although D1, figure 5, discloses two tolerance ranges which each have an upper and a lower cleaning limit, the measured yarn parameters are not compared with the one or the other tolerance range depending on region being measured in the D1 device. D1 therefore does not suggest designing a yarn cleaner for novelty yarn in such a way that measured values are evaluated differently depending on whether the respective value was measured in a web region or in an effect region.

Evaluating measured values differently in this manner is also neither disclosed by nor obvious

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**Box No. V**      **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**  
from D2 and D3.

- 3      Claims 2 to 10 are dependent on claim 1 and therefore also meet the PCT requirements for novelty and inventive step.